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TO: Tamthom Truong
Location: REM-5C18
Art Unit: 1624
Wednesday, December 21, 2005

Case Serial Number: 10/776876

From: Mary Hale
Location: Biotech/Chem Library
Rem 1D86
Phone: 2-2507

Mary.Hale@uspto.gov

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174082



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☐ TC 2900 ☐ TC 3600 ☐ TC 3700 ☐ Law Lib ☐ Other

Your Contact Information:

* indicates mandatory information.

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*Email Address:
(e.g., Susan.Smith@uspto.gov)

*Employee No.:

*Art Unit/Org.:

*Office Location:

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STIC

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If not related to a patent application, please enter NA here.

Class / Subclass(es)

Earliest Priority Filing Date:

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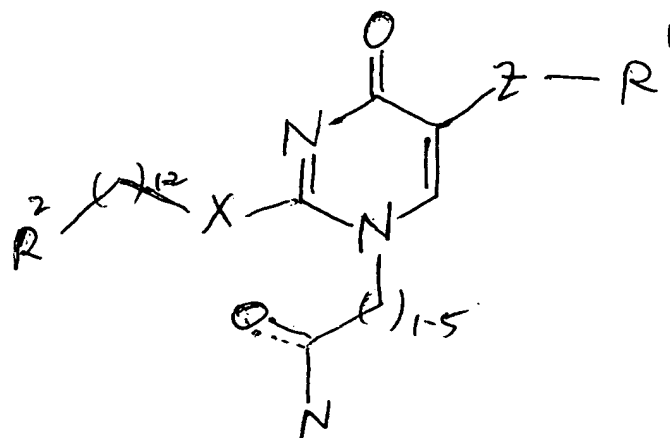
Provide detailed information on your search topic:

- In your own words, describe in detail the concepts or subjects you want us to search.
- Include synonyms, keywords, and acronyms. Define terms that have special meaning.
- *For Chemical Structure Searches Only*
Include the elected species or structures, keywords, synonyms, acronyms, and chemical structure.
- *For Sequence Searches Only*
Include all pertinent information (parent, child, divisional, or issued patent number and sequence number).
- *For Foreign Patent Family Searches Only*
Include the country name and patent number.

Query attached

13:29
1324
5mm
\$245.68

10/776,876 Query



R' = aryl or heteroaryl group;
(opt. sub.)

R² = (opt. sub.) aryl or heteroaryl group;

X = -O- or -S-;

Z = CR¹³R¹⁴

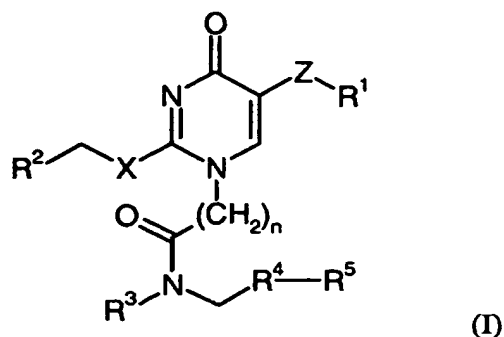
R¹³ + R¹⁴ = each is H, C₁₋₅ alkyl.

See also attached claims 1 + 14 (species).

Serial No.: 10/776,876
Group Art Unit No.: 1624

Amendments to the Claims:

1. (Currently amended) A compound of formula (I):



in which:

R^1 is an aryl or heteroaryl group, optionally substituted by 1, 2, 3 or 4 substituents which may be the same or different selected from $C_{(1-18)}$ alkyl, $C_{(1-18)}$ alkoxy, $C_{(1-18)}$ alkylthio, aryl $C_{(1-18)}$ alkoxy, hydroxy, halogen, CN, COR^6 , carboxy, $COOR^6$, $CONR^9R^{10}$, NR^6COR^7 , $SO_2NR^9R^{10}$, $NR^6SO_2R^7$, NR^9R^{10} , mono to perfluoro- $C_{(1-4)}$ alkyl and mono to perfluoro- $C_{(1-4)}$ alkoxy, oxo, or, ~~as a single substituent, optionally in combination with a further substituent as hereinbefore defined,~~ CH_2COOH or a salt thereof, CH_2COOR^8 , $CH_2CONR^9R^{10}$, CH_2CN , $(CH_2)_mNR^9R^{10}$, $(CH_2)_mOH$ or $(CH_2)_mOR^6$ where m is an integer from 1 to 3;

R^2 is an aryl or heteroaryl group, optionally substituted by 1, 2, 3 or 4 substituents which may be the same or different selected from $C_{(1-18)}$ alkyl, $C_{(1-18)}$ alkoxy, $C_{(1-18)}$ alkylthio, aryl $C_{(1-18)}$ alkoxy, hydroxy, halogen, CN, COR^6 , carboxy, $COOR^6$, $CONR^9R^{10}$, NR^6COR^7 , $SO_2NR^9R^{10}$, $NR^6SO_2R^7$, NR^9R^{10} , mono to perfluoro- $C_{(1-4)}$ alkyl, mono to perfluoro- $C_{(1-4)}$ alkoxy, and aryl $C_{(1-4)}$ alkyl;

R^3 is hydrogen or $C_{(1-4)}$ alkyl which may be unsubstituted or substituted by hydroxy, OR^6 , COR^6 , carboxy, $COOR^6$, $CONR^9R^{10}$, NR^9R^{10} , mono- or di-(hydroxy $C_{(1-6)}$ alkyl)amino or N-hydroxy $C_{(1-6)}$ alkyl-N- $C_{(1-6)}$ alkyl amino;

Serial No.: 10/776,876
Group Art Unit No.: 1624

R^4 is an aryl or a heteroaryl ring optionally substituted by 1, 2, 3 or 4 substituents which may be the same or different selected from $C_{(1-18)}$ alkyl, $C_{(1-18)}$ alkoxy, $C_{(1-18)}$ alkylthio, aryl $C_{(1-18)}$ alkoxy, hydroxy, halogen, CN, COR^6 , carboxy, $COOR^6$, $CONR^9R^{10}$, NR^6COR^7 , $SO_2NR^9R^{10}$, $NR^6SO_2R^7$, NR^9R^{10} , mono to perfluoro- $C_{(1-4)}$ alkyl and mono to perfluoro- $C_{(1-4)}$ alkoxy;

R^5 is an aryl ring which is further optionally substituted by 1, 2, 3 or 4 substituents which may be the same or different selected from $C_{(1-18)}$ alkyl, $C_{(1-18)}$ alkoxy, $C_{(1-18)}$ alkylthio, aryl $C_{(1-18)}$ alkoxy, hydroxy, halogen, CN, COR^6 , carboxy, $COOR^6$, $CONR^9R^{10}$, NR^6COR^7 , $SO_2NR^9R^{10}$, $NR^6SO_2R^7$, NR^9R^{10} , mono to perfluoro- $C_{(1-4)}$ alkyl and mono to perfluoro- $C_{(1-4)}$ alkoxy;

R^6 and R^7 are independently hydrogen or $C_{(1-20)}$ alkyl, for instance $C_{(1-4)}$ alkyl (e.g. methyl or ethyl);

R^8 is $C_{(1-4)}$ alkyl or a pharmaceutically acceptable *in vivo* hydrolysable ester group;

R^9 and R^{10} which may be the same or different is each selected from hydrogen, $C_{(1-12)}$ alkyl, CH_2R^{11} , $CHR^{12}CO_2H$ or a salt thereof, or R^9 and R^{10} together with the nitrogen to which they are attached form a 4- to 7-, preferably 5- to 7-, membered ring optionally containing one or more further heteroatoms selected from oxygen, nitrogen and sulphur, and optionally substituted by one or two substituents selected from hydroxy, oxo, $C_{(1-4)}$ alkyl, $C_{(1-4)}$ alkylCO, or aryl, e.g. phenyl, or aralkyl, e.g. benzyl, for instance morpholine or piperazine;

R^{11} is $COOH$ or a salt thereof, $COOR^8$, $CONR^6R^7$, CN, CH_2OH or CH_2OR^6 ;

R^{12} is an amino acid side chain such as CH_2OH from serine;

n is an integer from 1 to 4, preferably 1 or 3;

X is O or S; and

Z is $CR^{13}R^{14}$ where R^{13} and R^{14} are each hydrogen or $C_{(1-4)}$ alkyl, or R^{13} and R^{14} together with the intervening carbon atom form a $C_{(3-6)}$ cycloalkyl ring.

~~2. (original) A compound of formula (I) as claimed in claim 1 in which Z is CH_2 .~~

~~3. (Previously amended) A compound of formula (I) as claimed in claim 1 in which R^1 is an aryl group selected from phenyl and naphthyl or a heteroaryl group which comprises a 5- or 6- membered, monocyclic heteroaryl group comprising 1 or 2 nitrogen heteroatoms.~~

Serial No.: 10/776,876
Group Art Unit No.: 1624

11. (Previously amended) A compound of formula (I) as claimed in claim 1 in which R⁵ is phenyl optionally substituted by halogen, trifluoromethyl, or trifluoromethoxy.

12. (Previously amended) A compound of formula (I) as claimed in claim 10 in which R⁴ and R⁵ together form a 4-(phenyl)phenyl substituent in which the remote phenyl ring may be optionally substituted by halogen or trifluoromethyl.

13. (Deleted).

14. (Previously amended) A compound of formula (I) as claimed in claim 1 selected from the group consisting of:

1-(N-methyl-N-(4-(4-chlorophenyl)benzyl)aminocarbonylmethyl)-2-(4-fluorobenzyl)thio-5-(1-methylpyrazol-4-ylmethyl)pyrimidin-4-one;

1-(N-methyl-N-(4-(4-trifluoromethylphenyl)benzyl)aminocarbonylmethyl)-2-(4-fluorobenzyl)thio-5-(1-methylpyrazol-4-ylmethyl)pyrimidin-4-one;

1-(N-(2-dimethylaminoethyl)-N-(4-(4-chlorophenyl)benzyl)aminocarbonylmethyl)-2-(4-fluorobenzyl)thio-5-(1-methylpyrazol-4-ylmethyl)pyrimidin-4-one;

1-(N-methyl-N-(4-(4-chlorophenyl)benzyl)aminocarbonylmethyl)-2-(4-fluorobenzyl)thio-5-(2-(4-morpholino)pyrimidin-5-ylmethyl)pyrimidin-4-one;

1-(N-(2-(dimethylamino)ethyl)-N-(4-(4-trifluoromethylphenyl)benzyl)aminocarbonylmethyl)-2-(4-fluorobenzyl)thio-5-(1-methyl-4-pyrazolylmethyl)pyrimidin-4-one;

1-(N-(2-(diethylamino)ethyl)-N-(4-(4-chlorophenyl)benzyl)aminocarbonylmethyl)-2-(4-fluorobenzyl)thio-5-(1-methyl-4-pyrazolylmethyl)pyrimidin-4-one;

1-(N-(2-(diethylamino)ethyl)-N-(2-(4-trifluoromethylphenyl)pyridin-5-ylmethyl)aminocarbonylmethyl)-2-(4-fluorobenzyl)thio-5-(1-methyl-4-pyrazolylmethyl)pyrimidin-4-one;

Serial No.: 10/776,876
Group Art Unit No.: 1624

1-(N-(2-(1-piperidino)ethyl)-N-(4-(4-trifluoromethylphenyl)benzyl)aminocarbonylmethyl)-2-(4-fluorobenzyl)thio-5-(1-methyl-4-pyrazolylmethyl)pyrimidin-4-one bitartrate;

1-(N-(carboxymethyl)-N-(4-(4-trifluoromethylphenyl)benzyl)aminocarbonylmethyl)-2-(4-fluorobenzyl)thio-5-(1-methyl-4-pyrazolylmethyl)pyrimidin-4-one sodium salt; or

;

a pharmaceutically acceptable salt thereof.

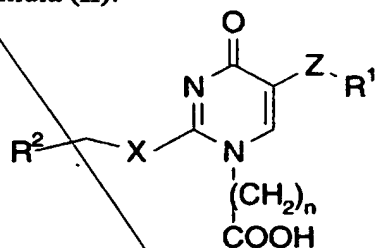
15. (Previously amended) A pharmaceutical composition comprising a compound of formula (I) as claimed in claim 14 and a pharmaceutically acceptable carrier.

16. - 18 (Deleted).

19. (original) A method of treating atherosclerosis which method comprises administering to a patient in need thereof an effective amount of a compound of formula (I) as claimed in claim 1 and a statin.

20. (original) A process for preparing a compound of formula (I) as defined in claim 1 which process comprises:

(a) reacting a compound of formula (II):



(II)

in which X, Y, Z, R¹ and R² are as defined in claim 1,
with a compound of formula (III):



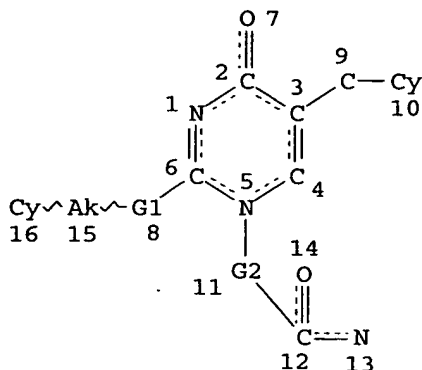
(III)

in which R³, R⁴ and R⁵ are as defined in claim 1; under amide forming conditions;

Page 1

Jruong
10/776876

=> d l3 que stat;fil caplus;s l3
L1 STR



VAR G1=O/S
REP G2=(1-5) C
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
L3 191 SEA FILE=REGISTRY SSS FUL L1

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L4 11 L3

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19822999 PD<MAY 1999
(PD<19990500)

L5 0 L4 AND PD<MAY 1999

=> d l4 1-11 ibib abs fhitr

L4 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:1177949 CAPLUS

DOCUMENT NUMBER: 143:434728

TITLE: Methods for detecting Lp-PLA2 activity and inhibition of Lp-PLA2 activity

INVENTOR(S): Shou, Yaping; Siu, Yin-Fai; Walker, George T.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 26 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005244913	A1	20051103	US 2005-106239	20050414
WO 2005113797	A2	20051201	WO 2005-US12948	20050414
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2004-563078P P 20040416

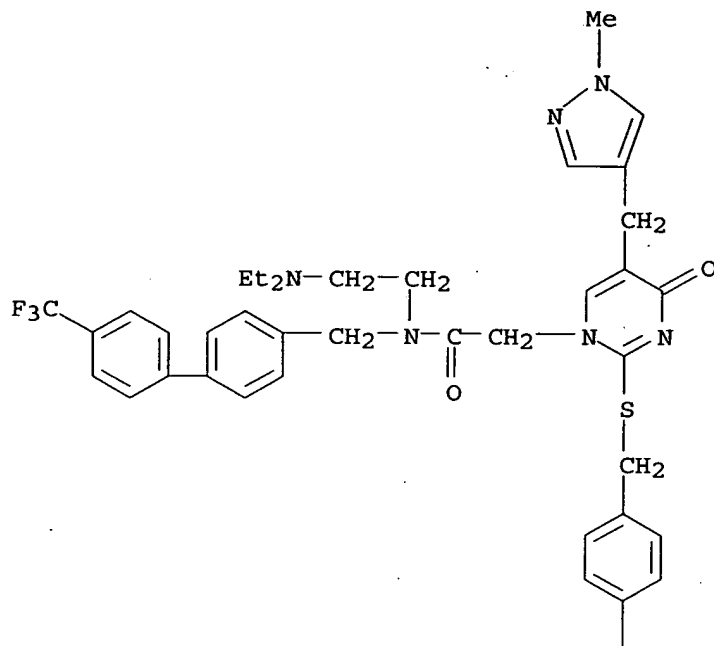
AB The invention discloses methods for determining the activity of Lp-PLA2 (PAF acetylhydrolase) in at least one sample from an animal. The invention also discloses methods for determining the inhibition of Lp-PLA2 activity in samples from animals that are administered an Lp-PLA2 inhibitor.

IT 304694-39-1

RL: PAC (Pharmacological activity); BIOL (Biological study)
(methods for detecting Lp-PLA2 activity and inhibition of Lp-PLA2 activity)

RN 304694-39-1 CAPLUS

CN 1(4H)-Pyrimidineacetamide, N-[2-(diethylamino)ethyl]-2-[[[4-fluorophenyl)methyl]thio]-5-[(1-methyl-1H-pyrazol-4-yl)methyl]-4-oxo-N-[[[4'-(trifluoromethyl)[1,1'-biphenyl]-4-yl)methyl]- (9CI) (CA INDEX NAME)



F

L4 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:215748 CAPLUS
 DOCUMENT NUMBER: 139:78433
 TITLE: The identification of clinical candidate SB-480848: a potent inhibitor of lipoprotein-associated phospholipase A2
 AUTHOR(S): Blackie, Josie A.; Bloomer, Jackie C.; Brown, Murray J. B.; Cheng, Hung-Yuan; Hammond, Beverley; Hickey, Deirdre M. B.; Ife, Robert J.; Leach, Colin A.; Lewis, V. Ann; Macphee, Colin H.; Milliner, Kevin J.; Moores, Kitty E.; Pinto, Ivan L.; Smith, Stephen A.; Stansfield, Ian G.; Stanway, Steven J.; Taylor, Maxine A.; Theobald, Colin J.
 CORPORATE SOURCE: Medicines Research Centre, GlaxoSmithKline, Stevenage, SG1 2NY, UK
 SOURCE: Bioorganic & Medicinal Chemistry Letters (2003), 13(6), 1067-1070
 CODEN: BMCLE8; ISSN: 0960-894X
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 139:78433
 AB Modification of the pyrimidinone 5-substituent in clin. candidate SB-435495

has given a series of inhibitors of recombinant lipoprotein-associated phospholipase A2 with sub-nanomolar potency. Cyclopentyl fused derivative 21, SB-480848, showed an enhanced in vitro and in vivo profile vs. SB-435495 and has been selected for progression to man.

IT 552857-42-8P

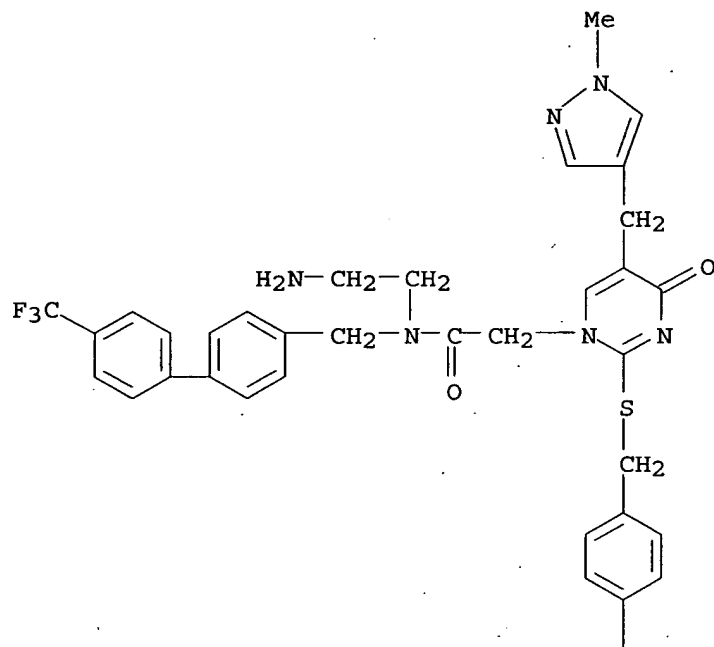
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(design and structure activity of lipoprotein-associated phospholipase A2 inhibitor SB-480848)

RN 552857-42-8 CAPLUS

CN 1(4H)-Pyrimidineacetamide, N-(2-aminoethyl)-2-[[[4-fluorophenyl)methyl]thio]-5-[(1-methyl-1H-pyrazol-4-yl)methyl]-4-oxo-N-[[4'-(trifluoromethyl)[1,1'-biphenyl]-4-yl)methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

F

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:154252 CAPLUS

DOCUMENT NUMBER: 138:205073

TITLE: Preparation of 2,5-substituted 1-(aminocarbonylalkyl)-pyrimidin-4-ones with Lp-PLA2 inhibitory activity for the treatment of atherosclerosis

INVENTOR(S): Elliott, Richard Leonard; Leach, Colin Andrew; Smith, Stephen Allan
 PATENT ASSIGNEE(S): Smithkline Beecham P.L.C., UK
 SOURCE: PCT Int. Appl., 32 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003015786	A1	20030227	WO 2002-EP9068	20020813
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			GB 2001-19793	A 20010814
OTHER SOURCE(S):			MARPAT 138:205073	
GI				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. [I; R1, R2 = (un)substituted (hetero)aryl; R3 = Het(alkyl) (wherein Het = (un)substituted 5-7 membered heterocyclyl, bonded directly through a ring carbon atom, comprising N atom and optionally O or S); R4 = (un)substituted (hetero)aryl; R5 = (un)substituted aryl; n = 1-4; X = O, S; Z = CR13R14 (R13, R14 = H, alkyl; or R13 and R14 together with the intervening carbon atom form cycloalkyl)] which are inhibitors of lipoprotein-associated phospholipase A2 (Lp-PLA2) and are of use in therapy, in particular for treating atherosclerosis, were prepared. Thus, amidation of N-[1-(2-methoxyethyl)piperidin-4-yl]-4-(4-trifluoromethylphenyl)benzylamine with 1-(carboxymethyl)-2-(2,3-difluorobenzylthio)-5-[(1-methylpyrazol-4-yl)methyl]pyrimidin-4-one (prepn. given) in the presence of HATU and (iso-Pr)2NH in DMF afforded II. The compds. I described in the examples were tested for Lp-PLA2 inhibition and demonstrated IC50 values in the range 1 to 0.01 nM.

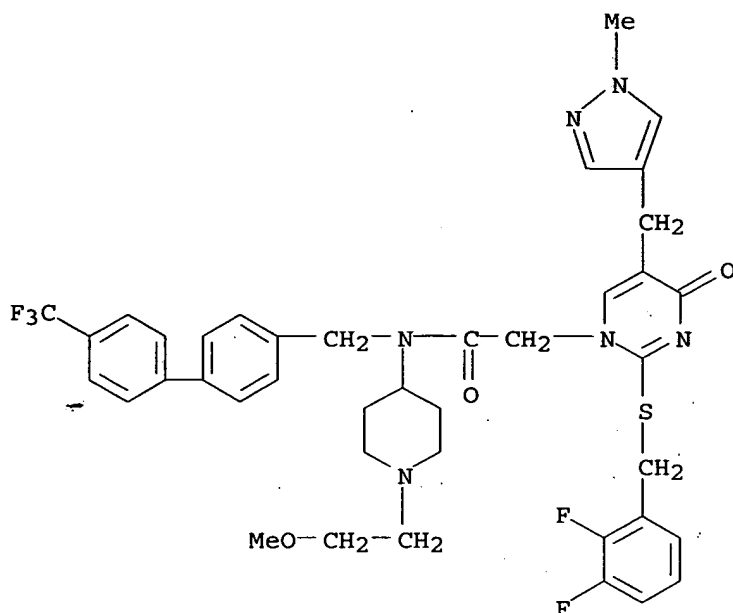
IT 500132-05-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 2,5-substituted 1-(aminocarbonylalkyl)-pyrimidin-4-ones with Lp-PLA2 inhibitory activity for the treatment of atherosclerosis)

RN 500132-05-8 CAPLUS

CN 1(4H)-Pyrimidineacetamide, 2-[[[(2,3-difluorophenyl)methyl]thio]-N-[1-(2-methoxyethyl)-4-piperidinyl]-5-[(1-methyl-1H-pyrazol-4-yl)methyl]-4-oxo-N-[[4'-(trifluoromethyl)[1,1'-biphenyl]-4-yl]methyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:641070 CAPLUS

DOCUMENT NUMBER: 138:280725

TITLE: The discovery of SB-435495: A potent, orally active inhibitor of lipoprotein-associated phospholipase A2 for evaluation in man

AUTHOR(S): Blackie, Josie A.; Bloomer, Jackie C.; Brown, Murray J. B.; Cheng, Hung-Yuan; Elliott, Richard L.; Hammond, Beverley; Hickey, Deirdre M. B.; Ife, Robert J.; Leach, Colin A.; Lewis, V. Ann; Macphee, Colin H.; Milliner, Kevin J.; Moores, Kitty E.; Pinto, Ivan L.; Smith, Stephen A.; Stansfield, Ian G.; Stanway, Steven J.; Taylor, Maxine A.; Theobald, Colin J.; Whittaker, Caroline M.

CORPORATE SOURCE: GlaxoSmithKline, Medicines Research Centre, Stevenage, SG1 2NY, UK

SOURCE: Bioorganic & Medicinal Chemistry Letters (2002), 12(18), 2603-2606

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The introduction of a functionalized amido substituent into a series of 1-(biphenylmethylacetamido)-pyrimidones has given a series of inhibitors of recombinant lipoprotein-associated phospholipase A2 with sub-nanomolar potency and very encouraging developability properties. Diethylaminoethyl derivative, SB-435495, was selected for progression to man.

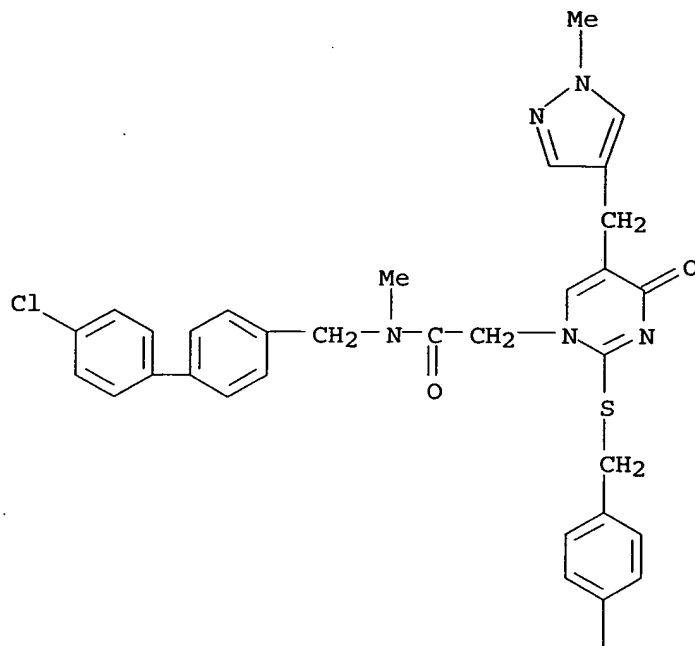
IT 304694-18-6P

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(pyrimidone SB-435495 as a lipoprotein-associated phospholipase A2

inhibitor)
 RN 304694-18-6 CAPLUS
 CN 1(4H)-Pyrimidineacetamide, N-[(4'-chloro[1,1'-biphenyl]-4-yl)methyl]-2-
 [[(4-fluorophenyl)methyl]thio]-N-methyl-5-[(1-methyl-1H-pyrazol-4-
 yl)methyl]-4-oxo- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

F

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
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L4 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:900066 CAPLUS

DOCUMENT NUMBER: 136:256730

TITLE: Potent, orally active inhibitors of
 lipoprotein-associated phospholipase A2:
 1-(biphenylmethylamidoalkyl)-pyrimidones

AUTHOR(S): Boyd, Helen F.; Fell, Stephen C. M.; Hickey, Deirdre
 M. B.; Ife, Robert J.; Leach, Colin A.; MacPhee, Colin
 H.; Milliner, Kevin J.; Pinto, Ivan L.; Rawlings, D.
 Anthony; Smith, Stephen A.; Stansfield, Ian G.;
 Stanway, Steven J.; Theobald, Colin J.; Whittaker,
 Caroline M.

CORPORATE SOURCE: GlaxoSmithKline, Medicines Research Centre, Stevenage,
 SG1 2NY, UK

SOURCE: Bioorganic & Medicinal Chemistry Letters (2001),

Volume Date 2002, 12(1), 51-55

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER:

Elsevier Science Ltd.

DOCUMENT TYPE:

Journal

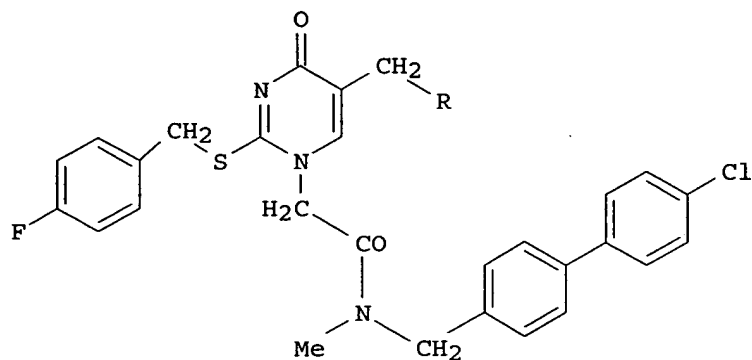
LANGUAGE:

English

OTHER SOURCE(S):

CASREACT 136:256730

GI



I

AB A series of 1-(biphenylmethyamidoalkyl)-pyrimidones has been designed as nanomolar inhibitors of recombinant lipoprotein-associated phospholipase A2 with high potency in whole human plasma. Two compds. (I, R=1-methylpyrazol-4-yl or 5-(2-methoxypyrimidin-5-yl)) demonstrated excellent pharmacodynamic profiles which correlated well with their pharmacokinetic effects.

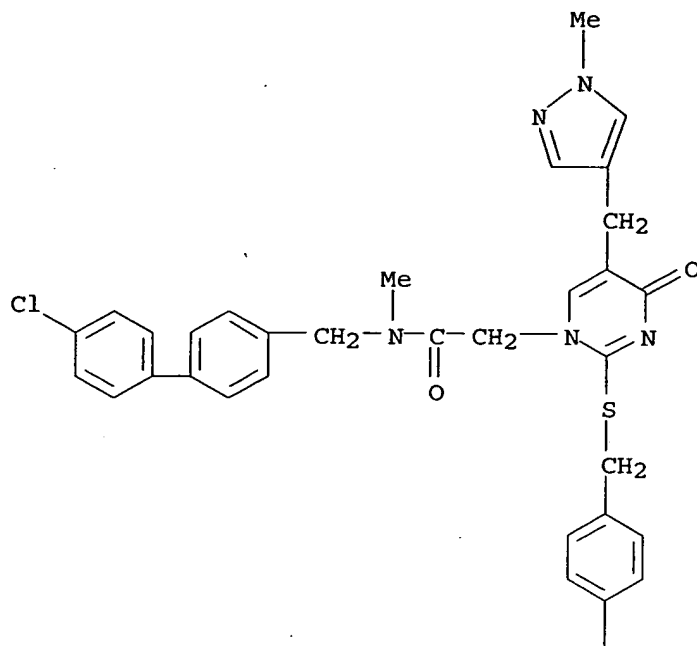
IT 304694-18-6P

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(1-(biphenylmethyamidoalkyl)-pyrimidones as inhibitors of lipoprotein-associated phospholipase A2)

RN 304694-18-6 CAPLUS

CN 1(4H)-Pyrimidineacetamide, N-[(4'-chloro[1,1'-biphenyl]-4-yl)methyl]-2-[[[(4-fluorophenyl)methyl]thio]-N-methyl-5-[(1-methyl-1H-pyrazol-4-yl)methyl]-4-oxo- (9CI) (CA INDEX NAME)



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F

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:518627 CAPLUS

DOCUMENT NUMBER: 135:326949

TITLE: 1-(Arylpiperazinylamidoalkyl)-pyrimidones: orally active inhibitors of lipoprotein-associated phospholipase A2

AUTHOR(S): Bloomer, J. C.; Boyd, H. F.; Hickey, D. M. B.; Ife, R. J.; Leach, C. A.; Macphee, C. H.; Milliner, K. J.; Pinto, I. L.; Rawlings, D. A.; Smith, S. A.; Stansfield, I. G.; Stanway, S. J.; Taylor, M. A.; Theobald, C. J.; Whittaker, C. M.

CORPORATE SOURCE: GlaxoSmithKline, Harlow, Essex, CM19 5AW, UK

SOURCE: Bioorganic & Medicinal Chemistry Letters (2001), 11(14), 1925-1929

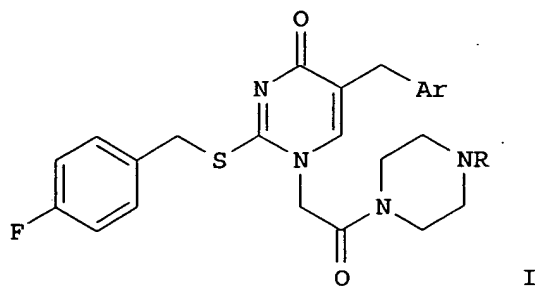
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB The lipophilic 1-substituent in a series of 1-((amido-linked)-alkyl)-pyrimidones, inhibitors of recombinant lipoprotein-associated phospholipase A2, has been modified to give inhibitors of high potency in human plasma and enhanced physicochem. properties. Phenylpiperazineacetamide derivative (I) shows very promising oral activity.

IT 224774-14-5P

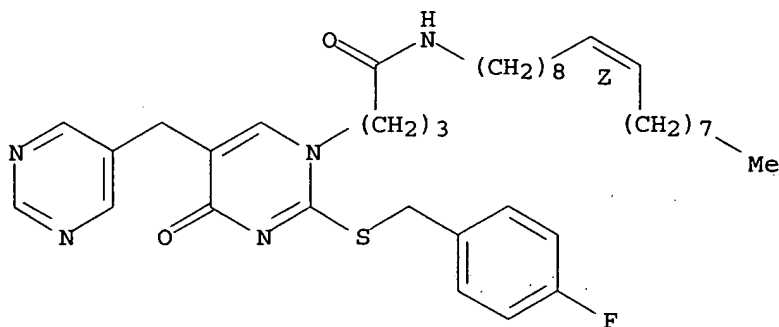
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 1-(arylpiperazinylamidoalkyl)-pyrimidones as orally active inhibitors of lipoprotein-associated phospholipase A2)

RN 224774-14-5 CAPLUS

CN 1(4H)-Pyrimidinebutanamide, 2-[[[(4-fluorophenyl)methyl]thio]-N-(9Z)-9-octadecenyl-4-oxo-5-(5-pyrimidinylmethyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:177448 CAPLUS

DOCUMENT NUMBER: 135:28649

TITLE: The identification of a potent, water soluble inhibitor of lipoprotein-associated phospholipase A2

AUTHOR(S): Boyd, H. F.; Hammond, B.; Hickey, D. M. B.; Ife, R. J.; Leach, C. A.; Lewis, V. A.; Macphee, C. H.; Milliner, K. J.; Pinto, I. L.; Smith, S. A.; Stansfield, I. G.; Theobald, C. J.; Whittaker, C. M.

CORPORATE SOURCE: New Frontiers Science Park, GlaxoSmithKline

SOURCE: Pharmaceuticals, Harlow, Essex, CM19 5AW, UK
Bioorganic & Medicinal Chemistry Letters (2001),
11(5), 701-704
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

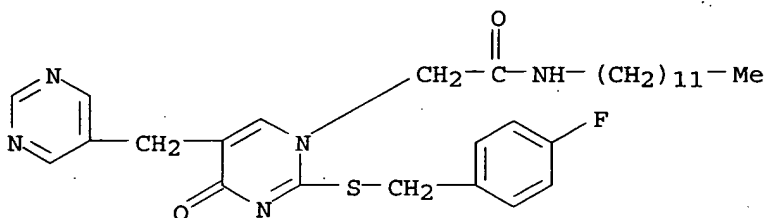
LANGUAGE: English

AB Modification of the pyrimidone 5-substituent in a series of
1-((amidolinked)-alkyl)pyrimidones, lipophilic inhibitors of
lipoprotein-associated phospholipase A2, has given inhibitors of nanomolar
potency and improved physicochem. properties. One of the compds. was
identified as a potent, highly water soluble, CNS penetrant inhibitor
suitable for i.v. administration.

IT 224774-53-2
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
(Uses)
(identification and structure-activity relationships of inhibitors of
lipoprotein-associated phospholipase A2)

RN 224774-53-2 CAPLUS

CN 1(4H)-Pyrimidineacetamide, N-dodecyl-2-[[[4-fluorophenyl)methyl]thio]-4-
oxo-5-(5-pyrimidinylmethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:844936 CAPLUS

DOCUMENT NUMBER: 134:115922

TITLE: N-1-Substituted pyrimidin-4-ones: novel, orally active
inhibitors of lipoprotein-associated phospholipase A2

AUTHOR(S): Boyd, Helen F.; Fell, Stephen C. M.; Flynn, Sean T.;
Hickey, Deirdre M. B.; Ife, Robert J.; Leach, Colin
A.; Macphee, Colin H.; Milliner, Kevin J.; Moores,
Kitty E.; Pinto, Ivan L.; Porter, Rod A.; Rawlings, D.
Anthony; Smith, Stephen A.; Stansfield, Ian G.; Tew,
David G.; Theobald, Colin J.; Whittaker, Caroline M.

CORPORATE SOURCE: SmithKline Beecham Pharmaceuticals, New Frontiers
Science Park, Essex, CM19 5AW, UK

SOURCE: Bioorganic & Medicinal Chemistry Letters (2000),
10(22), 2557-2561
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB From two related series of 2-(alkylthio)pyrimidones, a novel series of
1-[(amidolinked)-alkyl]pyrimidones was designed as nanomolar inhibitors of
human lipoprotein-associated phospholipase A2. These compds. show greatly
enhanced activity in isolated plasma. Selected derivs. are orally active

with a good duration of action.

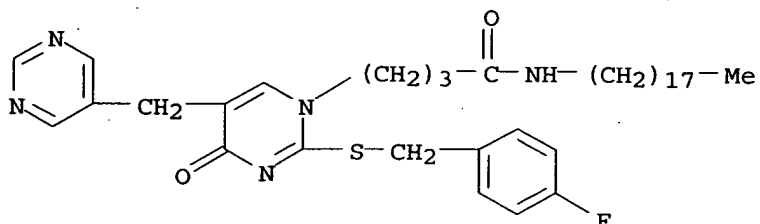
IT 224774-13-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(orally active inhibitor of lipoprotein-associated phospholipase A2)

RN 224774-13-4 CAPLUS

CN 1(4H)-Pyrimidinebutanamide, 2-[[(4-fluorophenyl)methyl]thio]-N-octadecyl-4-oxo-5-(5-pyrimidinylmethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:790485 CAPLUS

DOCUMENT NUMBER: 133:335244

TITLE: Preparation of 1-acetamido-2-(arylkylthio)-4-pyrimidinones as lipoprotein associated phospholipase A2 inhibitors

INVENTOR(S): Fenwick, Ashley Edward; Hickey, Deirdre Mary
Bernadette; Ife, Robert John; Leach, Colin Andrew;
Pinto, Ivan Leo; Smith, Stephen Allan

PATENT ASSIGNEE(S): SmithKline Beecham PLC, UK

SOURCE: PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000066567	A1	20001109	WO 2000-EP3727	20000425
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2371671	AA	20001109	CA 2000-2371671	20000425
EP 1175408	A1	20020130	EP 2000-920741	20000425
EP 1175408	B1	20041201		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
TR 200103216	T2	20020422	TR 2001-200103216	20000425
BR 2000010220	A	20020514	BR 2000-10220	20000425

JP 2002543190	T2	20021217	JP 2000-615598	20000425
AU 766003	B2	20031009	AU 2000-41203	20000425
NZ 515137	A	20031031	NZ 2000-515137	20000425
EP 1479671	A1	20041124	EP 2004-77397	20000425

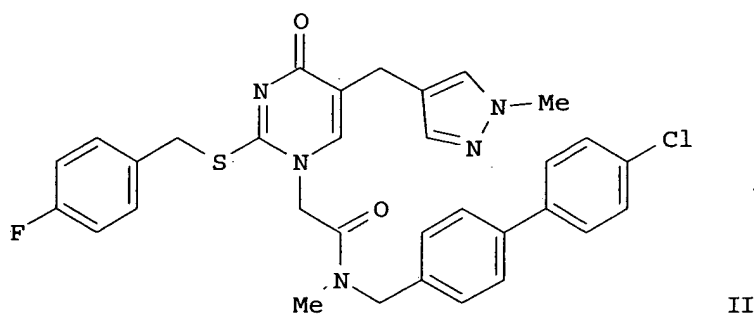
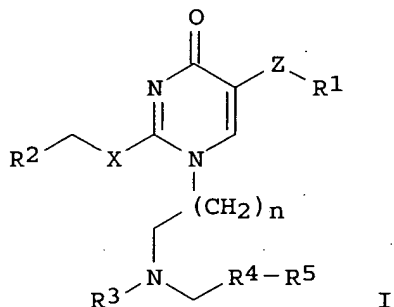
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, CY

AT 283845	E	20041215	AT 2000-920741	20000425
PT 1175408	T	20050429	PT 2000-920741	20000425
ES 2233361	T3	20050616	ES 2000-920741	20000425
NO 2001005329	A	20011031	NO 2001-5329	20011031
ZA 2001008991	A	20021020	ZA 2001-8991	20011031
US 6953803	B1	20051011	US 2002-30661	20020422
HK 1044757	A1	20050708	HK 2002-104602	20020620
<u>US 2004167142</u>	A1	20040826	US 2004-776876	20040211

PRIORITY APPLN. INFO.:

GB 1999-10048	A	19990501
GB 2000-2096	A	20000128
EP 2000-920741	A3	20000425
WO 2000-EP3727	W	20000425
US 2002-30661	A3	20020422

OTHER SOURCE(S): *preferred version* MARPAT 133:335244
GI



AB The title compds. (I) [wherein R1, R2, and R4 = independently (un)substituted (hetero)aryl; R3 = H or (un)substituted alkyl; R5 = (un)substituted aryl; n = 1-4, preferably 1 or 3; X = O or S; Z = CR13R14; R13 and R14 = independently H or alkyl; or CR13R14 = cycloalkyl] were prepared as inhibitors of the phospholipase A2 enzyme Lp-PLA2 for the treatment of atherosclerosis. For example, II was formed by amidation of 1-(carboxymethyl)-2-(4-fluorobenzylthio)-5-((1-methylpyrazol-4-yl)methyl)pyrimidin-4-one with N-methyl-4-(4-chlorophenyl)benzylamine

(preparation for both starting materials given). I inhibited recombinant Lp-PLA2 enzyme activity with IC50 values in the range of 0.001 to 0.00005 μ M.

IT 304694-35-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of 1-acetamido-2-(arylalkylthio)-4-pyrimidinone Lp-PLA2 inhibitors by amidation of 1-(carboxymethyl)-2-(arylalkylthio)-4-pyrimidinones with (hetero)arylalkylamines for the treatment of atherosclerosis)

RN 304694-35-7 CAPLUS

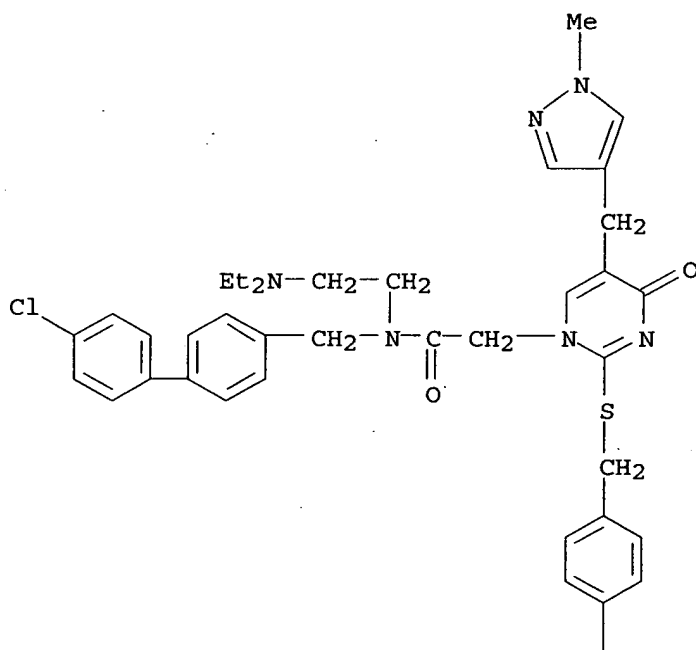
CN 1(4H)-Pyrimidineacetamide, N-[(4'-chloro[1,1'-biphenyl]-4-yl)methyl]-N-[2-(diethylamino)ethyl]-2-[[[(4-fluorophenyl)methyl]thio]-5-[(1-methyl-1H-pyrazol-4-yl)methyl]-4-oxo-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 304694-31-3

CMF C37 H40 Cl F N6 O2 S

PAGE 1-A



PAGE 2-A

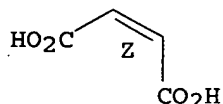
F

CM 2

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:144863 CAPLUS

DOCUMENT NUMBER: 132:180594

TITLE: Preparation of pyrimidinone derivatives for the
treatment of atherosclerosis

INVENTOR(S): Leach, Colin Andrew; Smith, Stephen Allan

PATENT ASSIGNEE(S): SmithKline Beecham PLC, UK

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

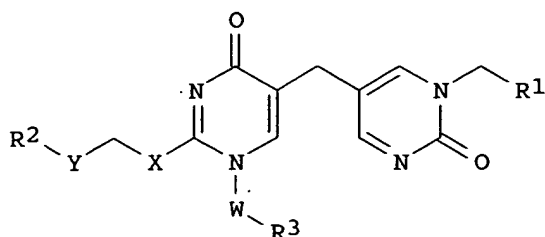
DOCUMENT TYPE: Patent

LANGUAGE: English

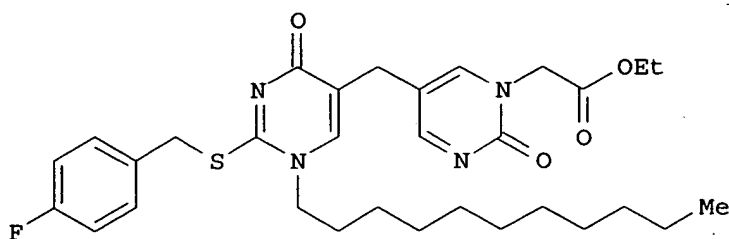
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000010980	A1	20000302	WO 1999-EP6093	19990818
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1105377	A1	20010613	EP 1999-942894	19990818
EP 1105377	B1	20031008		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002523402	T2	20020730	JP 2000-566254	19990818
AT 251613	E	20031015	AT 1999-942894	19990818
US 6559155	B1	20030506	US 2001-763492	20010221
PRIORITY APPLN. INFO.:			GB 1998-18375	A 19980821
			GB 1999-2009	A 19990129
			WO 1999-EP6093	W 19990818
OTHER SOURCE(S):			MARPAT 132:180594	
GI				



I



II

AB The title compds. [I; R1 = CO2H, salt thereof, CO2R10, etc.; R2 = mono- or bicyclic aromatic ring system, mono- or bicyclic heteroarom. ring system; R3 = alkyl, cycloalkyl, cycloalkylalkyl, etc.; W = SO2, a bond; X = O, S; Y = A1-A2-A3 (wherein A1 and A3 = a bond, alkylene; A2 = a bond, O, S, etc.; providing that when A2 = O, S, SO, SO2 or CONH, A3 contains at least two carbon atoms linking the A2 group and the CH2 group); R10 = alkyl, pharmaceutically acceptable in vivo hydrolysable ester] which are inhibitors of the enzyme LpPLA2, and are useful in treating inter alia atherosclerosis, were prepared E.g., a 3-step synthesis of pyrimidinone II starting with 1-undecyl-5-(2-methoxypyrimidin-5-ylmethyl)-2-thiouracil, was given. Compds. I were tested for Lp-PLA2 inhibition and showed IC50 of 0.0004-3.2 μ M.

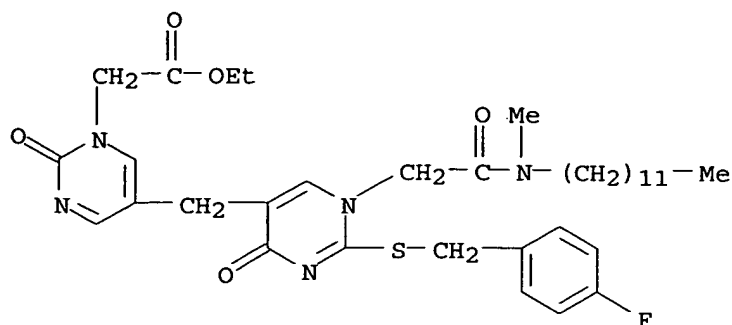
IT 259532-13-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses).

(preparation of pyrimidinones as antiatherosclerotics)

RN 259532-13-3 CAPLUS

CN 1(2H)-Pyrimidineacetic acid, 5-[[1-[2-(dodecylmethylamino)-2-oxoethyl]-2-[[[(4-fluorophenyl)methyl]thio]-1,4-dihydro-4-oxo-5-pyrimidinyl]methyl]-2-oxo-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:325924 CAPLUS

DOCUMENT NUMBER: 130:352278

TITLE: Preparation of pyrimidinone derivatives as Lp-PLA2 inhibitors

INVENTOR(S): Hickey, Deirdre Mary Bernadette; Ife, Robert John; Leach, Colin Andrew; Pinto, Ivan Leo; Porter, Roderick Alan; Smith, Stephen Allan

PATENT ASSIGNEE(S): Smithkline Beecham PLC, UK

SOURCE: PCT Int. Appl., 210 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

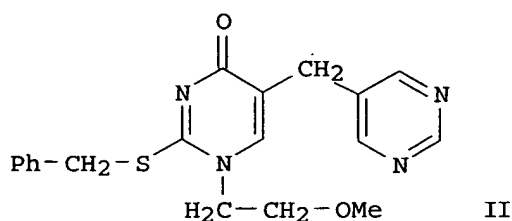
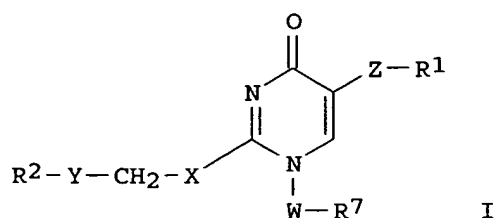
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9924420	A1	19990520	WO 1998-EP6988	19981023
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2309177	AA	19990520	CA 1998-2309177	19981023
AU 9911575	A1	19990531	AU 1999-11575	19981023
EP 1028955	A1	20000823	EP 1998-954482	19981023
EP 1028955	B1	20030716		
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SI				
JP 2001522844	T2	20011120	JP 2000-520434	19981023
ES 2203988	T3	20040416	ES 1998-954482	19981023
ZA 9810112	A	20000505	ZA 1998-10112	19981105
US 6417192	B1	20020709	US 2000-530713	20000628
US 2002120139	A1	20020829	US 2002-115452	20020402
PRIORITY APPLN. INFO.:			GB 1997-23352	A 19971106
			GB 1997-23358	A 19971106
			WO 1998-EP6988	W 19981023
			US 2000-530713	A3 20000628

OTHER SOURCE(S): MARPAT 130:352278

GI



AB The title compds. I [Z is a bond and R1 is halo, or Z is CR3R4 wherein R3 and R4 are each hydrogen, alkyl, or CR3R4 = cycloalkyl ring; R1 is aryl or heteroaryl group optionally substituted by 1 - 4 substituents; X = O, S; Y is AlA2A3 in which A1 and A3 each represent a bond or alkylene, and A2 represents a bond or O, S, etc.; a proviso is given; R2 is aryl or heteroaryl group optionally substituted by 1 - 4 substituents; W is a bond and R7 is hydrogen; or W is SO2 or a bond; R7 is R1 or hydrocarbyl group (further detail on said hydrocarbyl group is given)] are prepared I are useful in the treatment of atherosclerosis (no data). For example, pyrimidinone derivative II was prepared Compds. of this invention were found

to

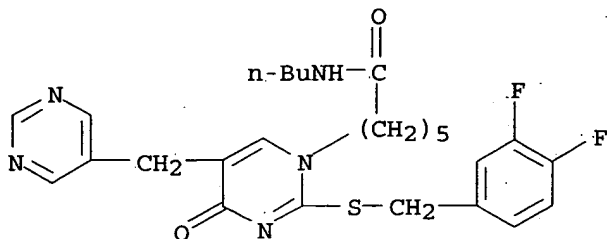
have IC50 values in the range 0.0001 to 60 μ M in the test for lipoprotein-associated phospholipase A2 (Lp-PLA2) inhibition.

IT 224778-23-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and therapeutic effect of pyrimidinone derivs. as Lp-PLA2 inhibitors)

RN 224778-23-8 CAPLUS

CN 1(4H)-Pyrimidinehexanamide, N-butyl-2-[[[(3,4-difluorophenyl)methyl]thio]-4-oxo-5-(5-pyrimidinylmethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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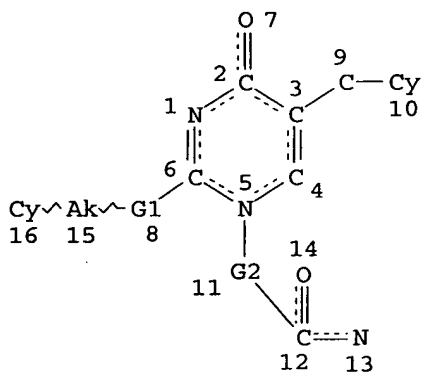
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 L3 191 S L1 FUL

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L4 11 S L3
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L1 STR



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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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STEREO ATTRIBUTES: NONE
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191 ANSWERS

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FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
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DICTIONARY FILE UPDATES: 19 DEC 2005 HIGHEST RN 870234-75-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

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* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

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experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

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=> s benzyl(1)aminocarbonylmethyl(1)pyrimidin?

280779 BENZYL

9 BENZYL

280779 BENZYL

(BENZYL OR BENZYL)

63 AMINOCARBONYLMETHYL

1036492 PYRIMIDIN?

L6 1 BENZYL(L)AMINOCARBONYLMETHYL(L)PYRIMIDIN?

=> fil caplus;s l6 or benzyl(1)aminocarbonylmethyl(1)pyrimidin?

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	14.23	234.62
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
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FILE LAST UPDATED: 19 Dec 2005 (20051219/ED)

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1 L6
171403 BENZYL
52 BENZYL S
171424 BENZYL
(BENZYL OR BENZYL S)
93 AMINOCARBONYLMETHYL
81333 PYRIMIDIN?
0 BENZYL (L) AMINOCARBONYLMETHYL (L) PYRIMIDIN?
L7 1 L6 OR BENZYL (L) AMINOCARBONYLMETHYL (L) PYRIMIDIN?

=> d ibib abs hitstr

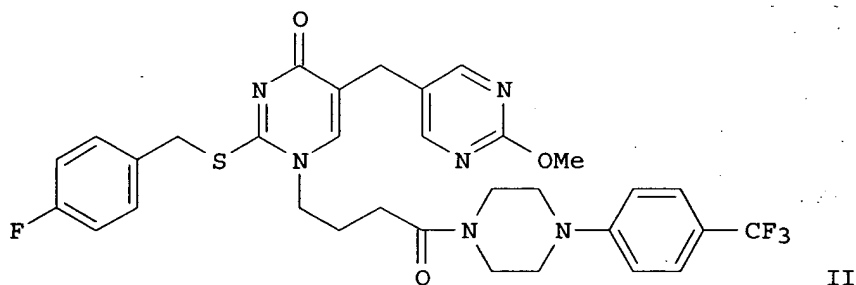
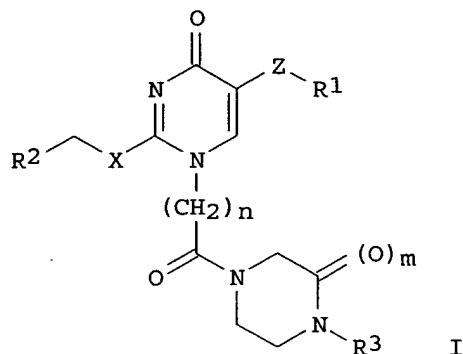
L7 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:790484 CAPLUS
DOCUMENT NUMBER: 133:350250
TITLE: Preparation of 1-(piperazinylcarbonylalkyl)-2-(arylalkylthio)-4-pyrimidinones as lipoprotein associated phospholipase A2 inhibitors
INVENTOR(S): Hickey, Deirdre Mary Bernadette; Ife, Robert John; Leach, Colin Andrew; Smith, Stephen Allan
PATENT ASSIGNEE(S): SmithKline Beecham PLC, UK
SOURCE: PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000066566	A1	20001109	WO 2000-EP3726	20000425
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

EP 1173424 A1 20020123 EP 2000-927053 20000425
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO

JP 2002543189	T2	20021217	JP 2000-615597		20000425
PRIORITY APPLN. INFO.:			GB 1999-10079	A	19990501
			WO 2000-EP3726	W	20000425

OTHER SOURCE(S) : MARPAT 133:350250
GI

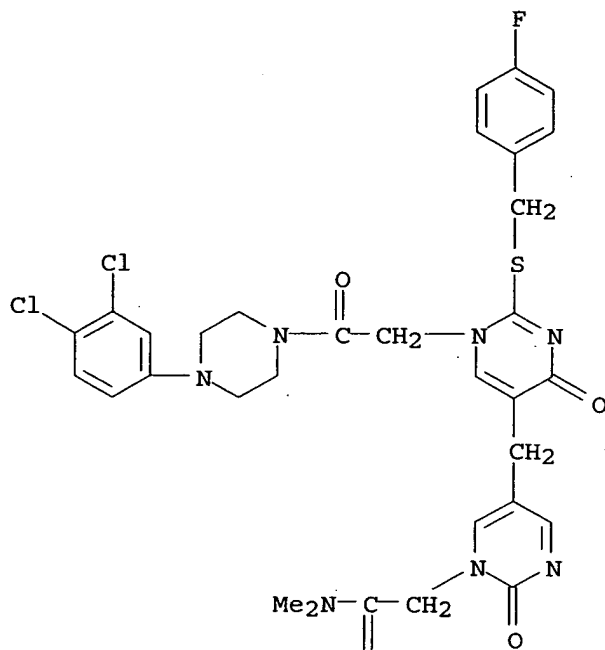


AB The title compds. (I) [wherein R1 and R2 = independently (un)substituted (hetero)aryl; R3 = H, alkyl, alkenyl, (un)substituted (hetero)arylalkyl, alkylcarbamoyl, alkylsulfamoyl, alkylsulfonyl, or acyl; m = 0 or 1; n = 1-4, preferably 1 or 3; X = O or S; Z = CR13R14; R13 and R14 = independently H or alkyl; or CR13R14 = cycloalkyl] were prepared as inhibitors of the phospholipase A2 enzyme Lp-PLA2 for the treatment of atherosclerosis. For example, II was formed by amidation of 1-(3-carboxyprop-1-yl)-2-(4-fluorobenzylthio)-5-(2-methoxypyrimid-5-ylmethyl)pyrimidin-4-one (preparation given) with 1-(4-trifluoromethylphenyl)piperazine. II inhibited recombinant Lp-PLA2 enzyme activity with an IC50 of 2 nM.

IT 304903-61-5P, 1-[4-(3,4-Dichlorophenyl)piperazin-1-ylcarbonylmethyl]-2-((4-fluorobenzyl)thio)-5-[1-(dimethylaminocarbonylmethyl)-2-oxopyrimidin-5-ylmethyl]pyrimidin-4-one
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of 1-(piperazinylcarbonylalkyl)-2-(arylalkylthio)-4-pyrimidinone Lp-PLA2 inhibitors by amidation of 1-(carboxyalkyl)-2-(arylalkylthio)-4-pyrimidinones with piperazines)

RN 304903-61-5 CAPLUS
 CN 1(2H)-Pyrimidineacetamide, 5-[[1-[2-[4-(3,4-dichlorophenyl)-1-piperazinyl]-2-oxoethyl]-2-[[4-(4-fluorophenyl)methyl]thio]-1,4-dihydro-4-oxo-5-pyrimidinyl]methyl]-N,N-dimethyl-2-oxo- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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FILE 'REGISTRY' ENTERED AT 13:24:56 ON 20 DEC 2005

L1 STR
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 L3 191 S L1 FUL

FILE 'CAPLUS' ENTERED AT 13:27:41 ON 20 DEC 2005

L4 11 S L3
 L5 0 S L4 AND PD<MAY 1999

FILE 'REGISTRY' ENTERED AT 13:29:07 ON 20 DEC 2005

L6 1 S BENZYL(L) AMINOCARBONYLMETHYL(L) PYRIMIDIN?

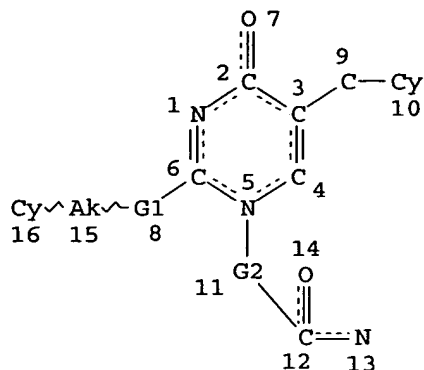
Prepared by: Mary Hale @2-2507 Rem Bldg 1D86

FILE 'CAPLUS' ENTERED AT 13:29:47 ON 20 DEC 2005

L7 1 S L6 OR BENZYL(L)AMINOCARBONYLMETHYL(L)PYRIMIDIN?

=> d l3 que stat

L1 STR



VAR G1=O/S

REP G2=(1-5) C

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE

L3 191 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 5052 ITERATIONS

191 ANSWERS

SEARCH TIME: 00.00.01

=> log y

COST IN U.S. DOLLARS

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FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

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ENTRY	SESSION
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